

**AMENDMENT TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-11 (canceled)

12.) (Original) A reactor system for treating soot-containing waste water comprising:

a soot clarifier in communication with a soot-containing waste water stream;

a first reactor basin in communication with said soot clarifier for receiving a settled soot from said clarifier and having a mixed liquor therein; and

an activated sludge input to said first reactor basin.

13.) (Original) The reactor system as recited in claim 12 further including at least one dissolved oxygen monitor, said monitor detecting a dissolved oxygen level in said mixed liquor of said first reactor basin.

14.) (Original) The reactor system as recited in claim 12 further including an oxygen input connected to said first reactor basin.

15.) (Original) The reactor system as recited in claim 14, wherein said oxygen input comprises a floating aerator, an aerator platform, or a combined jet aerator and mixer.

16.) (Original) The reactor system as recited in claim 12 further comprising a mixer within said first reactor basin, said mixer for mixing said mixed liquor.

17.) (Original) The reactor system as recited in claim 12 further comprising one of a belt press or a centrifuge in communication with said first reactor basin.

18.) (Original) The reactor system as recited in claim 12 further comprising a second clarifier containing waste water and sludge; said second clarifier connected to said first reactor basin by a sludge line, said sludge line comprising said activated sludge input to said first reactor basin.

19.) (Original) The reactor system as recited in claim 18 further comprising a pump located between said second clarifier and said first reactor basin and in communication with said sludge line, said pump pumping said sludge from said second clarifier into said first reactor basin.

20.) (Original) The reactor system as recited in claim 17 further comprising a second aerobic reactor basin, said second aerobic reactor basin in communication with said soot clarifier and said second aerobic reactor basin in communication with said second clarifier and providing output to said second clarifier.

21.) (Original) The reactor system as recited in claim 20 further comprising an anoxic reactor basin, said anoxic reactor basin in communication with said soot clarifier

and in communication with said second aerobic reactor basin, said anoxic reactor basin receiving input from said soot clarifier.